

Application No. 09/348,495
Amendment dated July 12, 2004
Reply to Office Action dated May 11, 2004

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method for establishing a link on a shared communications channel divided into a plurality of time slots, the method comprising the steps of:

establishing a synchronous communications link between a first and second communication unit; and

communicating a first data packet on a first one of a set of time slots associated with the synchronous communication link from the first communication unit to the second communication unit by including an address associated with the second communication unit in the first data packet;

establishing an asynchronous communications link between the first communication unit and one or more additional communication units including the second communication unit using one or more remaining ones of the plurality of time slots; and

communicating a second data packet on a first of the one or more of the remaining time slots associated with the asynchronous communications link from the first communication unit to the second communication unit by including another address associated with the second communication unit.

Claim 2 (Original): The method of claim 1, wherein the step of establishing the synchronous communications link further includes the steps of:

reserving a set of the plurality of time slots for use by the synchronous communications link

separating each one of the time slots associated with the set by a fixed time interval.

Claim 3 (Canceled).

Claim 4 (Currently Amended): The method of claim [3] 1, further including the step of interrupting the synchronous communications link with the asynchronous

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communications link by communicating the second data packet from the first communication unit to the second communication unit on a second one of the set of time slots associated with the synchronous communications link.

Claim 5 (Currently Amended): The method of claim [3] 1, wherein the asynchronous link further includes a Time-Division duplex link and wherein the first communication[s] unit alternately transmits and receives on different ones of the remaining time slots.

Claim 6 (Currently Amended): The method of claim [3] 1, further including the steps of:

communicating the second data packet on one or more additional ones of the remaining one or more time slots from the first communication unit to the one or more additional units; and

polling each of the one or more additional units for a response packet to the second data packet.

Claim 7 (Original): The method of claim 6, wherein the asynchronous link further includes a Time-Division duplex link and wherein the one or more additional units alternately receive the poll from the first communication unit and transmit the response packet on different ones of the remaining time slots.

Claim 8 (Previously Presented): The method of claim 1, further comprising the steps of:

establishing a second synchronous communications link between a first and third communication unit; and

communicating a second data packet on a first one of a set of time slots associated with the second synchronous communication link from the first communication unit to the third communication unit by including an address associated with the third communication unit in the second data packet.

Claim 9 (Original): The method of claim 8, further including the step of interrupting the second synchronous communications link with an asynchronous communications link by communicating the second data packet from the first

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communication unit to the third communication unit on a second one of the set of time slots associated with the second synchronous communications link.

Claim 10 (Original): The method of claim 1, wherein the plurality of time slots associated with the shared communications channel are further divided into a plurality of frequencies.

Claim 11 (Original): The method of claim 10, wherein the step of communicating further includes the step of communicating subsequent data packets on subsequent ones of the set of time slots associated with the synchronous communication link from the first communication unit to the second communication unit using different ones of the plurality of frequencies.

Claim 12 (Previously Presented): A communication system for establishing multimedia communications on a shared communications channel comprising:

a second first communication unit; and

one or more additional communication units including a first second communication unit coupled to the second first communication unit by the shared communications channel, wherein the first unit:

establishes a synchronous communications link with the second communication unit, said synchronous link having a set of time slots associated therewith; and

communicates a first data packet on a first of the set of time slots associated with the synchronous communication link to the second communication unit by including an address associated with the second communication unit in the data packet;

establishes an asynchronous communications link between the first communication unit and the one or more additional communication units using one or more remaining ones of the plurality of time slots; and

communicates a second data packet on a first of the one or more of the remaining time slots associated with the asynchronous communications link from the first communication unit to the one or more additional communication units by including one or more addresses associated with each of the one or more additional communication units.

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Claim 13 (Previously Presented): The communication system of claim 12, wherein the first communication unit:

reserves the set of the plurality of time slots for use by the synchronous communications link; and

separates each one of the time slots associated with the set by a fixed time interval.

Claim 14 (Canceled).

Claim 15 (Currently Amended): The communication system of claim [14] 12, wherein the first communication unit interrupts the synchronous communications link with the asynchronous communications link by communicating the second data packet from the first communication unit to the second communication unit on a second one of the set of time slots reserved for the synchronous communications link.

Claim 16 (Currently Amended): The communication system of claim [14] 12, wherein the asynchronous link further includes a Time-Division duplex link and wherein the first communication[s] unit alternately transmits and receives on different ones of the remaining time slots.

Claim 17 (Currently Amended): The communication system of claim [14] 12, wherein the first communication unit:

communicates the second data packet on one or more additional ones of the remaining one or more time slots from the first communication unit to the one or more additional units; and

polls each of the one or more additional units for a response packet to the second data packet.

Claim 18 (Original): The communication system of claim 17, wherein the asynchronous link further includes a Time-Division duplex link and wherein the one or more additional units alternately receive the poll from the first communication unit and transmit the response packet on different ones of the remaining time slots.

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Claim 19 (Previously Presented): The communication system of claim 12, further comprising a third communication unit;

wherein the first communication unit:

establishes a second synchronous communications link with the third communication unit, said second synchronous link having a set of time slots associated therewith; and

communicates a first data packet on a first of the set of time slots associated with the synchronous communication link to the second communication unit by including an address associated with the second communication unit in the data packet.

Claim 20 (Original): The communication system of claim 12, wherein the plurality of time slots associated with the shared communications channel are further divided into a plurality of frequencies.

Claim 21 (Previously Presented): The communication system of claim 20, wherein the first communication unit communicates subsequent data packets on subsequent ones of the set of time slots associated with the synchronous communication link from the first communication unit to the second communication unit using different ones of the plurality of frequencies.

Claim 22 (Previously Presented): A master communication unit in a communication system having a shared communications channel divided into a plurality of timeslots, the master communication unit comprising:

a transceiver for transmitting and receiving data packets over said shared communication channel; and

a processor coupled to the transceiver, the processor reserves one or more sets of the plurality of timeslots to establish one or more synchronous communications links thereupon;

establishes one or more asynchronous communications links on the remaining ones of the plurality of timeslots; and

causes said transceiver to use one or more destination addresses when transmitting data packets over said communications channel on said one or more

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synchronous communications links and said one or more asynchronous communications links.

Claim 23 (Previously Presented): The master communication unit of claim 22, wherein the processor:

interrupts the one or more synchronous communication links by causing the transceiver to transmit one or more asynchronous data packets to one or more destinations specified by one or more of the one or more destination addresses.

Claim 24 (Original): The master communication unit of claim 22, wherein the one or more synchronous and the one or more asynchronous communications link further comprise Time Division Duplex links.

Claim 25 (Previously Presented): The method of claim 1, wherein the synchronous communications link between the first and second communication units operates in accordance with a frameless protocol.

Claim 26 (Previously Presented): The communication system of claim 12, wherein the synchronous communication link operates in accordance with a frameless protocol.

Claim 27 (Previously Presented): The master communication unit of claim 22, wherein the one or more synchronous communications links and the one or more asynchronous communications links operate in accordance with a frameless protocol.

Claim 28 (Currently Amended): The method of claim [3] 1, wherein the address and the another address associated with the second communication[s] unit use the same address.